WATERBODY DATA FORM

ENSR AECOM

Date: 7/5/08	Pro	ject Name	& No.: Key	stone XL-1	0623-007-803		Milepost		
Investigators: 8A		State/County: SD/HK						Quad Name: MIDLAND	
Logbook No.: 2	Logbe				Tract No.: ML-SD-HK-11770.000			Picture No.: S8AHK006_N,S,W	
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Waterbody Sketo								SI	
Please include: I Survey corridor	Jirectional o	& North Ar	row, Centerl	ine, Lengtr	n of feature, Di	stances from	Centerline,	Photo Location	ons, and
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Angle of Cross	sing at Cen	terline:	95°			☐ Ag. Ditch	Other:		
Angle of Cross	Lake	☐ Pond ☐ Moderate	☐ Borrow Pit	River Flow type	□ Perennial (Fi □ Seasonal (Co □ Intermittent (I	lows year round) ontinuous flow ≥ 3 Flows <3 months	3 months)	Direction of F it crosses CL E, SE, S, SW	S (N, NE
Angle of Cross Waterbody Type Stream Flow	Lake Fast Very Slov	☐ Pond ☐ Moderate	☐ Borrow Pit	Flow	□ Perennial (Fi □ Seasonal (Co □ Intermittent (I	lows year round) ontinuous flow ≥ 3	3 months)	it crosses CL	S (N, NE
Angle of Cross Waterbody Type Stream Flow Subsurface Flow?	Lake Fast Very Slov	☐ Pond ☐ Moderate	☐ Borrow Pit ☐ Slow ☐ None	Flow type	☐ Perennial (FI☐ Seasonal (Cc☐ Intermittent (I☐ Ephemeral (Frainfall)	lows year round) ontinuous flow ≥ 3 Flows <3 months Flows only in resp	3 months)) oonse to	it crosses CL E, SE, S, SW	S (N, NE
Angle of Cross Waterbody Type Stream Flow Subsurface Flow? DHWM Width (ft.):	Lake Fast Very Slow	☐ Pond ☐ Moderate w ☐ No	☐ Borrow Pit ☐ Slow ☐ None ☑ Unknown	Flow	Perennial (F Seasonal (Co Intermittent (I Ephemeral (F rainfall)	lows year round) ontinuous flow ≥ 3 Flows <3 months Flows only in resp	3 months)) ponse to	it crosses CL E, SE, S, SW	S (N, NE
Angle of Cross Waterbody Type Stream Flow Subsurface Flow? DHWM Width (ft.): Stream Width (ft.)	Lake Fast Very Slov Yes 7	☐ Pond ☐ Moderate w ☐ No	☐ Borrow Pit ☐ Slow ☐ None ☑ Unknown	Flow type Sinuosity	□ Perennial (Fi	lows year round) ontinuous flow ≥ 3 Flows <3 months Flows only in resp ht (at crossing loca	3 months)) ponse to Mea	it crosses CL E, SE, S, SW ndering	:S (N, NE , W, NW)
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Angle of Cross Vaterbody Type Stream Flow Subsurface Flow? DHWM Width (ft.): Stream Width (ft.) Stream Depth (in.)	Lake Lake Fast Very Slov Yes Top of Bank 0-3 Clear nat	☐ Pond ☐ Moderate w ☐ No ☐ (at crossing ☐ 3-6 tural line on b	☐ Borrow Pit ☐ Slow ☐ None ☑ Unknown location): 30 ☑ 6-12 pank	Flow type Sinuosity 12-	□ Perennial (Fi	ows year round) ontinuous flow ≥ 3 Flows <3 months Flows only in resp ht (at crossing loca ☐ 24-36 ☐ Shelving	3 months) conse to Meantion): 7	it crosses CL E, SE, S, SW ndering	S (N, NE', W, NW)
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Page 2 of 2

Feature ID #: S8AHK006

Date: 7/5/08	Project Name & No.: Keystone XL-10623-007-803A Milepost: 479.0						
QUALITATIVE A							
Vater Appearance check all that apply)	Clear Turbid Sheen on surface Floating algal mats Water Color: Slightly Turbid Very Turbid Greenish color Obvious surface scum BROWNISH-OLIVE Other:						
Stream Substrate %	Silts/ Clay 70 Cobbles Bedrock Sands 15 Gravel 5 Concrete Muck 10 Vegetation: Other: Explain:						
Aquatic Habitats check all that apply)	Sand Bar Gravel Riffles In-stream emergent plants: Gravel Bar Deep Pools In-stream submerged plants: Mud Bar Bank root systems Fringing Wetlands: Undercut Banks Overhanging trees/shrubs						
Aquatic Organisms Observed (check ail hat apply)	Waterfowl Fish (adult) Turtles Other: NONE OBS. Snakes Fish (juvenile) Frogs						
Riparian Zone	Width of natural vegetation zone from edge of active channel out onto flood plain (FT): 35 Circle vegetative layers: trees ☒ shrubs ☒ herbs ☒ ☐Significant bare areas within riparian zone ☐Evidence of non-buffered concentrated flows						
ributary Is	Natural □Artificial (Man-Made) □Manipulated						
Channel Condition:	Channelization Unnatural straightening Downcutting Dikes/Berms ☐ Excessive bank or Braiding ☐ ☐ ☑ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐						
Disturbances	Livestock access to riparian zone Manure in stream or on banks Other: BANK SLUMPING						
Describe Habitat Chai	racteristics, Aquatic & Terrestrial Diversity: Habitat ID No.:						
GREEN ASH OVEF JAPANESE BROM DRIFT- WOOD FRO	RSTORY; SNOWBERRY/ HONEY SUCKLE (?) / CHOKECHERRY TO WEST. WHEATGRASS/ E UNDERSTORY. ERODIBLE CLAY SOILS HAVE CREATED INCISED CHANNELS. PILES OF OM HIGH FLOWS ALONG BANKS. SOME RIFFLES. e crossing angle, construction constraints, erosion potential, existing disturbances, and meanders)						